<table>
<thead>
<tr>
<th>AD NUMBER</th>
<th>AD505500</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLASSIFICATION CHANGES</td>
<td></td>
</tr>
<tr>
<td>TO:</td>
<td>UNCLASSIFIED</td>
</tr>
<tr>
<td>FROM:</td>
<td>CONFIDENTIAL</td>
</tr>
<tr>
<td>LIMITATION CHANGES</td>
<td></td>
</tr>
<tr>
<td>TO:</td>
<td></td>
</tr>
<tr>
<td>Approved for public release; distribution is unlimited.</td>
<td></td>
</tr>
<tr>
<td>FROM:</td>
<td></td>
</tr>
<tr>
<td>Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; 31 JUL 1969. Other requests shall be referred to office of the Adjutant General (Army), Washington, DC 20310.</td>
<td></td>
</tr>
<tr>
<td>AUTHORITY</td>
<td></td>
</tr>
<tr>
<td>AGO ltr 29 Apr 1980 ; AGO ltr 29 Apr 1980</td>
<td></td>
</tr>
</tbody>
</table>
SECURITY
MARKING

The classified or limited status of this report applies to each page, unless otherwise marked. Separate page printouts MUST be marked accordingly.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18, U.S.C., SECTIONS 793 AND 794. THE TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U.S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.
THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.
AGDA (M) (17 Oct 69) FOR OT UT 693265 28 October 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 38th Artillery Brigade, Period Ending 31 July 1969 (U)

SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation in accordance with paragraph 5b, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl as

DISTRIBUTION:
Commanding Generals
US Continental Army Command
US Army Combat Developments Command
Commandants
US Army War College
US Army Command and General Staff College
US Army Air Defense School
US Army Field Artillery School
US Army Infantry School
US Army Military Police School
US Army Missile and Munitions School
US Army Ordnance School
US Army Security Agency School
US Army Signal School
US Army Southeastern Signal School

Regraded unclassified when separated from classified inclosure.
CONFIDENTIAL

DISTRIBUTION (Cont'd)

Copies furnished:
Office, Chief of Staff, US Army
Deputy Chiefs of Staff
Chief of Research and Development
Assistant Chiefs of Staff
Chief of Engineers
The Provost Marshal General
OSD(SA) Assistant for Southeast Asia Forces
Commanding Generals
US Army Materiel Command
US Army Electronics Command
US Army Weapons Command
38th Artillery Brigade
Commandant of the Marine Corps
Senior Army Representative, Marine Corps Development & Education Command
Director, Weapons Systems Evaluation Group
Defense Documentation Center
Security Officer, Hudson Institute
Commanding Officers
US Army Limited War Laboratory
US Army Logistics, Doctrine Systems & Readiness Agency
US Army Mobility Equipment Research & Development Center
SUBJECT: "Operational Report of 38th Artillery Brigade (AD) for Period Ending 31 July 1969, RCS CSR-65 (AI) (U)

SEE DISTRIBUTION

1. (C) Section 1, Operations: Significant Activities.

A. The organizational structure of the 38th Artillery Brigade (AD) is indicated in Inclosure 1. The brigade and its five subordinate battalions are organized under TOCS 44-25E, TOCS 44-25D, TOCS 44-25DD, TOCS 44-23D, TOCS 44-237D, TOCS 44-237D, TOCS 44-536D, TOCS 44-537D, TOCS 44-537D.

B. There was one change of command during the period 1 May 1969 to 31 July 1969. On 30 July 1969 LTC Daniel J. Walsh took command of 1st Battalion (Art), 38th Artillery, in lieu of LTC Carl Leishman, who returned to CONUS.

C. Material Improvement Programs.

(1) HAWK

(c) The Private "Swakeen Program", an application of Department of Army Modification Work Orders (PMWO), which incorporates major improvements and eliminates safety hazards, continued through the reporting period. Blocks 1 through 6 have been completed. Block 7, consisting of 75 kits, has been released for field application. "HAWK Missile Facility Order (MF1) has 2 terms surveying brigade requirements. Expected completion date of subject survey is 1 Aug 69 at which time the Missile Command will issue requisite modification kits to TFR for installation.

(b) The "HAWK Refurbishment Program", administered by the Northern Company, one of which complete major items of equipment are rebuilt, has now refurbished 167 major items of equipment. The rebuilding of the 167 major items of equipment is not complete. A total of 532 refurbishments are required to be made. All refurbishments have been completed as of 25 July 1969. In addition, 10% of the fleet is to be revised for subsequent refurbishment. The above task orders are in January 1970.

693265 Inclosure 1

CONFIDENTIAL

DOWNGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10
SUBJECT: Operational Reports - Lessons Learned

(c) The brigade basic load of ATJ missiles has been exchanged or is now in the process of being established by FMDC Command Force working at the 39th Ordnance command. Projected completion date is 1 Aug 69.

(2) Nike-Hercules

(a) The Airborne銷售isation Radar Program (ASR), originally scheduled for completion by January 1969, will not be completed before 1 September 1969. 6 towers and 6 sets have been received and are available, except for electrical power wiring. Timing problems are expected to be resolved by 1 September 1969. The first ASR is expected to arrive in country by 1 August 1969. The final tower is presently under construction and is expected to be completed by 1 September 1969.

(b) The complete Nike-Hercules systems are programmed to be exchanged. The system that will be installed at F Battery 4/14 is presently at Inchon. It should be operational by 1 September 1969. The system scheduled to replace the at 4 Battery 4/14 is not left OC/CO. Projected installation completion date is not available at this time.

(3) J/70 Fire Distribution System

(a) Battle Operation Control J/70-38 and J/70-18 have been replaced with rebuilt equipment at 4th Bn, 44th Artillery, 7th Bn, 2d Artillery, and 2d Bn, 71st Artillery. Rebuilt equipment will be installed at 7th Bn, 5th Artillery by 15 August 1969. For protection for installation of subject equipment is available at this time for 4th Bn, 44th Artillery.

(b) The rebuilt OC, recently installed at 4th Bn, 44th Artillery, has failed to remain operational due to improper power. However, special shipments of reserve parts are now being received from the rebuild depot and repairs should be completed by 1 October 1969.

(2) Each Battalion in the brigade has been assigned a full time ECON Electronic Equipment Representative to provide assistance with EDC maintenance.

(b) The VHF radio relay system, used to interconnect the tactical sites for data link and voice control, has been augmented by the receipt of 17 each AH/ARC-73 and 7 each AH/AEC-54 equipment from the divisional units. While these first generation systems are not new, their purpose should improve the overall capability of the brigade VHF network.

(c) The P/CON Battery Terminal Equipment (P/CON), J/70-77, has replaced Code-Decoder equipments at all 22 missile firing units. Six of the new units were inoperable due to manufacturing defects or compatibility modification defects. Five additional units were recently received from Okinawa to replace inoperable units with a sixth expected in the immediate future. Installation
CONFIDENTIAL

SUBJECT: Operational Reports - Lessons Learned

of the six units will be performed by CCUS representatives. No projected completion date is available at this time. The six defective units, presently in Brigade, will be returned to CCUS through MCCM channels. The two float units were shipped from CCUS 1 July and are expected in country in the near future.

(d) The old Code-Decoder Group (CDG) equipment, released from service when replaced by RTUs, have been cannibalized, per DA authority, to aid in maintaining CC equipment. Arrangements have been made to provide components from the CDG's to NIG for use by 1st AD, Brigade (RCC) CDG's. Brigade is presently awaiting instructions from DA for disposition of CDG hulks.

(4) Vehicles

(a) Required manual "proof load testing" of the HAWI loader/transporter XM501E3 has been completed. Twelve loaders, or 25% of the brigade fleet, were found to have faulty jacks. EA has 11 weeks due out which are not expected at DSU's before 10 Oct 69. Only the loaders with faulty jacks can be used in an emergency but an element of danger would be involved since the missiles would not inert correctly. Only 2 of the 6 "float" loaders are operational.

(f) Mandatory requirements prescribe that all jacks be replaced every 200 hours or annually, whichever occurs first. FACOD will perform the above replacement. Parts are presently being stocked but no projected completion date is available at this time.

(g) Organizational maintenance of HAWI loaders/transporters is generally poor throughout the brigade. Battalion Commanders will make use of the (R.C) representative assigned to their units in order to improve the maintenance posture of this equipment.

(b) Units throughout the brigade are experiencing maintenance problems with the 12 Ton truck, 1715. Equipment Improvement Reports will be submitted to ARCB in order to permit the government to utilize their comments with the manufacturer.

D. Brigade inputs for conversion of all units within the command to G-Series TOE will be submitted to Eighth Army by 28 August 69. Few problems were encountered in meeting proposed strength ceilings, but were resolved through several conferences between Eighth Army and Brigade representatives.

E. Site Battalion, VN/TAP site for Headquarters, 4th Battalion (Horn), 44th Artillery, was relocated to Situ Fresno. The new site became operational on 15 June 69 and resulted in an overall increase in equipment reliability and alleviation of requirements for five Eighth Army and 30th Brigade radio relay stations.

2. (c) Section 2, Lessons Learned. Corresponding Operatorship and Readiness. (Concluded).

CONFIDENTIAL
A. Problem.

(1) Critical Shortage of Senior CO's, RC 3140 and 31250.

(2) CSEVTATION. The combat effectiveness of an integrated air defense system is directly related to the reliability of its communications system linking the firing batteries, battle command centers and the Air Defense Command Posts. It is difficult to adequately maintain communications without a full complement of senior CO's.

(b) EVALUATION. Of a total of sixteen (2) authorized E7s and E8s, RC 3140 and 31250, this brigade currently assigned three (3). With forty-five (45) operational UTC/MCS units, brigade supervision cannot be performed by only three senior CO's.

(c) RECOMMENDATION. The 34th Brigade be given a high priority for replacement of E7s and E8s in RC 3140 and 31250 from both Eighth Army and Department of the Army Resources.

B. Operations.

(1) Moisture in HAWI Launcher Slip Rings.

(a) CSEVTATION. Many problems with HAWI launchers develop as a result of moisture in the slip rings. This especially is evident during the rainy season and during fall and a rise, when seasonal temperature changes cause condensation.

(b) EVALUATION. An effective solution to this problem was to completely seal the contact assembly and replace existing air with dry nitrogen. Two holes were drilled in the contact assembly to allow placement of a purging fitting and a moisture indicator. One large hole was drilled near the top front and the moisture indicator was sealed in place. The second hole was drilled near the bottom front and the purging unit was sealed in place. Sealing can be accomplished with wax or other suitable seal and tube to five pounds pressure of dry nitrogen applied to insure that no moisture can leak in. Total installation time is five hours. An EIR has been submitted, recommending this modification.

(c) RECOMMENDATION. That the EIR be considered for application.

(2) Modulator Oscillator Failure.

(a) CSEVTATION. The modulator oscillator in the CW Acquisition radar has an HP absorption stub which receives all reflected CW forward power until the modulator oscillator cavity has tuned itself to the desired frequency as the output of the oscillator. In cases when the cavity is unable to tune to the desired frequency, the absorption stub becomes extremely hot and burns out the modulator oscillator.

CONFIDENTIAL
CONFIDENTIAL

SUBJECT: Operational Report - Lessons Learned

(b) EVALUATION. An effective solution is to attach a thermal switch directly to the absorption stub with epoxy or other suitable cement. The switch is designed to open at approximately 120 degrees, which is below the melting point of the absorption stub, and any time the stub overheats the switch opens, thereby, breaking the radiate interlock command which automatically oscillates without danger of damage to equipment. An EIR has been submitted recommending this MOD for application.

(c) RECOMMENDATION. That the EIR be considered for application.

D. Installation

(1) Site Security.

(a) CONSTRUCTION. Several site penetration attempts have been successful or units of this command by higher headquarters.

(b) WARNING. In all cases, whether successful or unsuccessful, local commanders have benefited from the attempts. In addition to alerting commanders to their physical security problems areas and weaknesses, these penetrations also serve to install in all personnel a sense of urgency and importance in maintaining effective physical security.

(c) RECOMMENDATION. That penetration attempts continues on a frequent and unannounced basis.

(2) Sentry Dog Handlers.

(a) OBSERVATION. Battery Commanders throughout the brigade are having difficulty replacing sentry dog handlers departing to CONUS.

(b) EVALUATION. A serious shortage exists throughout Eighth Army and especially in the 19th Brigade in MOS 95B, qualified sentry dog handlers. Unit commanders must rely on unqualified battery personnel to volunteer and be trained as sentry dog handlers, which results in operationally weak shortages.

(c) RECOMMENDATION. MOS qualified sentry dog handlers should be assigned to the brigade on a regular basis.

E. Logistics. None

F. Organization. None

G. Signal

(1) VHF/UHF Communications.
CONFIDENTIAL

SUBJECT: Operational Report - Los AnL, N.M.

(a) OVERVIEW. There have been several breakdowns in VHF/UHF communications network with Los Alamos Interlock as well as an Air Defense Control Post and a firearms handling have been noted.

(b) EVALUATION. The Brigade does not have the personnel or qualified personnel to evaluate the network or Defense Communications Agency standard comparison.

(c) RECOMMENDATION. Test a qualified team has conducted an evaluation of the Brigade VHF/UHF communications network to determine its effectiveness and capabilities.

Lloyd H. Patch

DIRECTOR
1 - Office for Force Development, Department of the Army, Washington, DC 20310, (202) 692-2250, US Army
2 - COE, Department of the Army, Washington, DC 20310, (202) 692-2250, US Army
3 - OGEO, Department of the Army, Washington, DC 20310, (202) 692-2250, US Army
4 - Geological Survey, Department of the Interior, Washington, DC 20240, (202) 343-6200

CONFIDENTIAL

6
1. (O) This headquarters has reviewed subject report. The following comments supplement the report:

2. (O) Reference item concerning Critical Shortage of senior NCOs, DOS 316.60 and 3146.0, page 6, para 2A(1). The present personal status and forecast for NCOs and grades authorized 3rd Artillery Brigade are:

<table>
<thead>
<tr>
<th></th>
<th>Authorized</th>
<th>Assigned</th>
<th>September</th>
<th>October</th>
</tr>
</thead>
<tbody>
<tr>
<td>31140 E7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>31240 E7</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

There will be some relief for the shortages in these MOSs in September and October.

3. (O) Reference item concerning moisture in 4.2K launcher simulators, page 7, para 2A(1). Concur.


6. (O) Reference item concerning Sentry Dog Handlers, page 5, para 20(1). In response to an emergency requisition submitted by Eighth Army for sentry dog handlers, Department of the Army stated that the handlers would arrive before 15 September 1969. Upon their arrival they will be assigned to 3rd Artillery Brigade. Additionally, 22 military policemen due to arrive in September have volunteered for sentry dog handler training. After their arrival and training, they will be used to alleviate the shortage of sentry dog handlers in the 3rd Artillery Brigade.

7. (O) Reference item concerning 1374/1S Communications, page 5, para 2A(1). Initial investigation reveals that there is a possibility of
CONFIDENTIAL

AG-116 (unit) lst Inc

N OFC: Operational Report of 3rd Artillery Brigade (3rd) for Period ending 31 July 1962, AGS 3974-63 (m) (n)

33718 communications degradation within the 3rd artillery brigade.
An Eighth Army Staff visit to the brigade will be scheduled to better enable an evaluation of the problem.

For use only by:

[Signature]

MICHAEL K. FOX
CPT, AGC
A2et AG

Costs Involved:
2-A25-04, 0A
1-37, 3rd Army Ade (1m only)
GPOP-DT (undtd) 2d Ind (U)
SUBJECT: Operational Report of HQ, 38th Artillery Brigade (AD) for Period Ending 31 July 1969, RCS CSFOR-65 (Rl) (U)
HQ, US Army, Pacific, APO San Francisco 96558

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

C. L. SHORTT
CPT, AGC

4 OCT 69
ORGANIZATIONAL STRUCTURE OF 39TH ARTILLERY BRIGADE (AD)

HEADQUARTERS
38TH
ARTY BDE (AD)

2D BATTALION
(HAWK)
71ST ARTILLERY

4TH BATTALION
(HERO)
44TH ARTILLERY

6TH BATTALION
(HAWK)
44TH ARTILLERY

7TH BATTALION
(HAWK)
2D ARTILLERY

7TH BATTALION
(HAWK)
5TH ARTILLERY
Operational Report - Lessons Learned, HQ, 38th Artillery Brigade

Experiences of unit engaged in counterinsurgency operations, 1 May 69 to 31 July 69.

CG, 38th Artillery Brigade